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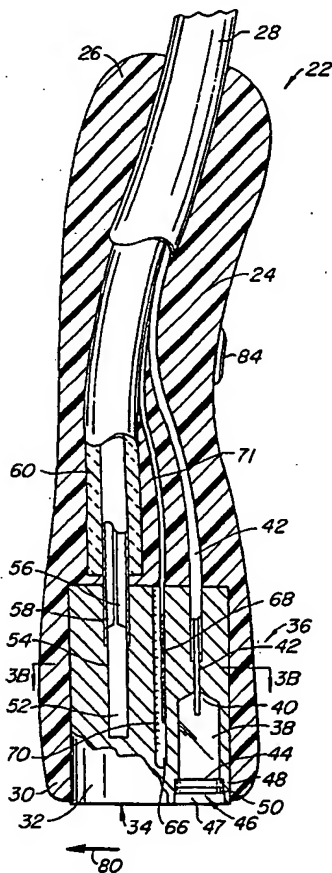
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| <p>(51) International Patent Classification⁷: A61B 18/20</p> <p>(21) International Application Number: PCT/US00/06563</p> <p>(22) International Filing Date: 13 March 2000 (13.03.2000)</p> <p>(25) Filing Language: English</p> <p>(26) Publication Language: English</p> <p>(30) Priority Data:
 09/270,118 15 March 1999 (15.03.1999) US
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 09/393,830 10 September 1999 (10.09.1999) US</p> <p>(71) Applicant: ALTUS MEDICAL, INC. [US/US]; 821 Cowan Road, Burlingame, CA 94010 (US).</p> <p>(72) Inventors: CONNORS, Kevin, P.; Suite B, 1181 Chess Drive, Foster City, CA 94404 (US). GOLLNICK, David,</p> | <p>A.; Suite B, 1181 Chess Drive, Foster City, CA 94404 (US). SASNETT, Michael, W.; Suite B, 1181 Chess Drive, Foster City, CA 94404 (US).</p> <p>(74) Agents: HANN, James, F. et al.; Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th floor, San Francisco, CA 94111-3834 (US).</p> <p>(81) Designated States (<i>national</i>): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.</p> <p>(84) Designated States (<i>regional</i>): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,</p> |
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[Continued on next page]

(54) Title: HAIR REMOVAL DEVICE AND METHOD



(57) Abstract: A hair removal device (22) includes a cooling surface (34) which is used to contact the skin (6) prior to exposure to hair tissue-damaging laser light (74) passing from a radiation source (36) through a recessed window (46). The window is laterally offset from the cooling surface and is spaced apart from the cooling surface in a direction away from the patient's skin to create a gap between the window and the skin. The window preferably includes both an inner window (46) and an outer, user-replaceable window (48). The laser-pulse duration is preferably selected according to the general diameter of the hair.

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MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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15 February 2001

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Inter. Application No

PCT/US 00/06563

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B18/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 51235 A (GEN HOSPITAL CORP ; PALOMAR MEDICAL TECHNOLOGIES I (US)) 19 November 1998 (1998-11-19)	23,27,30
A	page 18, line 27 - page 19, line 10; figure 5 page 11, line 5 - line 12 page 16, line 3 - line 5 page 21, line 7 - line 9 page 22, line 14 - line 16	1,24,28, 31,33, 45,48
Y	WO 98 24514 A (PALOMAR MEDICAL TECHNOLOGIES I) 11 June 1998 (1998-06-11)	23,27, 30, 39-41, 45,46
A	page 6, line 29 - page 7, line 9; figure 1 page 6, line 20 - line 22 page 7, line 4 - line 9 -/--	1,25,28

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

24 October 2000

Date of mailing of the international search report

06. 11. 2000

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INTERNATIONAL SEARCH REPORT

Inter Application No

PCT/US 00/06563

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99 11324 A (BALLE PETERSEN OLAV ;ASAH BJARNE (DK); ASAH MEDICO A S (DK); DOLLE) 11 March 1999 (1999-03-11) page 41, line 4 - line 18; figure 14 -----	1
Y A	US 4 813 412 A (ABE KEIZO ET AL) 21 March 1989 (1989-03-21) abstract column 5, line 9 - line 12 -----	39-41, 45,46 47
A	WO 99 07438 A (NEEV JOSEPH) 18 February 1999 (1999-02-18) page 20, line 1 - line 8 -----	39,40,47

INTERNATIONAL SEARCH REPORT

Inte. tional application No.
PCT/US 00/06563

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-22

Hair removal device with skin-cooling element and offset, recessed window for laser passage

2. Claims: 23-38

Hair removal device with skin-cooling element, offset window for laser passage and laser power input means.

3. Claims: 39-47

Method for hair removal comprising determining hair diameter and selecting pulse duration.

4. Claim : 48

Method for preparing to apply laser radiation with a hair removal device determining time intervals for cooling or between laser applications.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/06563

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